

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2002-NM-338-AD; Amendment 39-13788; AD 2004-18-10]**

**RIN 2120-AA64**

### **Airworthiness Directives; Bombardier Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Bombardier Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes, that requires inspection of the fitting assemblies located on the vent and scavenge lines routed immediately below the fuel tank access covers on both wings for proper installation, and corrective actions if necessary. This amendment also requires inspection of the stiffeners on the underside of fuel tank access covers on both wings for signs of chafing damage caused by incorrect orientation of the lockwire tail, and removal of damage. This action is necessary to prevent contact between the lockwire pigtail of the fitting and the stiffener located on the inside surface of the fuel access covers of the wings, which could serve as a potential ignition source within the fuel tank if a cover is struck by lightning and result in possible fuel tank explosion. This action is intended to address the identified unsafe condition.

**DATES:** Effective October 13, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 13, 2004.

**ADDRESSES:** The service information referenced in this AD may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, suite 410, Westbury, New York; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

*[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).*

**FOR FURTHER INFORMATION CONTACT:** Mazdak Hobbi, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, suite 410, Westbury, New York 11590; (516) 228-7330; fax (516) 256-5531.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Bombardier Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes was published in the Federal Register on December 31, 2003 (68 FR 75471). That action proposed to require inspection of the fitting assemblies located on the vent and scavenge lines routed immediately below the fuel tank access covers on both wings for proper installation, and corrective actions if necessary. That action also proposed to require inspection of the stiffeners on the underside of fuel tank access covers on both wings for signs of chafing damage caused by incorrect orientation of the lockwire tail, and removal of damage.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

## **Request to Reference Original Issue of Service Bulletin**

One commenter requests that the notice of proposed rulemaking (NPRM) be revised to reference Bombardier Alert Service Bulletin A8-28-33, dated June 3, 2002. The commenter notes that the NPRM refers to Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002, as the appropriate source of service information for the proposed actions. The commenter states that Revision "A" only removed the eddy current and fluorescent dye penetrant inspections, and that the original service bulletin accomplishes the same intent as Revision "A." The commenter concludes that including the original service bulletin in the NPRM will eliminate the need to request alternative methods of compliance with the NPRM.

We agree with the commenter that accomplishment of the actions before the effective date of this AD in accordance with Bombardier Alert Service Bulletin A8-28-33, dated June 3, 2002, is acceptable for compliance with the corresponding requirements of this AD. In addition, Canadian airworthiness directive CF-2002-44, dated October 22, 2002, references the original service bulletin as the appropriate source of service information for accomplishing the required actions. Therefore, we have added a new paragraph (f) in the final rule to clarify this point and renumbered subsequent paragraphs.

## **Request to Extend Compliance Time**

One commenter requests that the compliance time for the proposed inspection be extended from 12 months to 36 months. This would allow most airplanes to be inspected during scheduled maintenance. The commenter states that the proposed inspections require tank entry, and that its normal tank entry interval is 11,500 flight hours or approximately every 4 years. The commenter considers that the adoption of the proposed compliance time of 12 months would require operators to schedule special times for the accomplishment of the inspections, at additional expense.

We do not agree with the commenter's request to extend the compliance time. In developing an appropriate compliance time for this action, we considered the safety implications, parts availability, and normal maintenance schedules for timely accomplishment of the inspections. In addition, the 12-month compliance time coincides with Canadian airworthiness directive CF-2002-44. In consideration of these items, we have determined that 12 months represents an appropriate interval of time allowable wherein the inspections can be accomplished during scheduled maintenance intervals for the majority of affected operators, and wherein an acceptable level of safety can be maintained.

However, under the provisions of paragraph (h) of the final rule, we may approve requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety.

### **Request To Allow Designated Engineering Representatives (DER) To Approve Repairs**

One commenter requests that paragraph (e) of the NPRM be revised to allow FAA DERs to approve repairs for damage in excess of the given limits. The commenter states that rework of chafing is a relatively minor structural repair, and the repair has no impact on the arcing condition for which the NPRM is being issued.

We do not agree. Authority for this type of approval is normally retained by the responsible Aircraft Certification Office (ACO). We do not anticipate so many requests for this type of approval that delegation would be necessary to provide timely responses. Also, paragraph (e) of the final rule provides two additional sources of repair approval (i.e., the TCCA or its delegated agent).

### **Conclusion**

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

### **Cost Impact**

The FAA estimates that 172 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the required inspections, and that the average labor rate is \$65 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$11,180, or \$65 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

### **Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE

Aircraft Certification Service  
Washington, DC



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-18-10 Bombardier, Inc. (Formerly de Havilland, Inc.):** Amendment 39-13788. Docket 2002-NM-338-AD.

**Applicability:** Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes, serial numbers 003 through 586 inclusive; certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent contact between the lockwire pigtail of the fitting and the stiffener located on the inside surface of the fuel access covers of the wings, which could serve as a potential ignition source within the fuel tank if a cover is struck by lightning and result in possible fuel tank explosion, accomplish the following:

## **Inspection of Fitting Assemblies and Lockwire**

(a) Within 12 months after the effective date of this AD, do a general visual inspection to verify proper installation of the fitting assemblies and the lockwire located on the vent and scavenge lines routed immediately below the fuel tank access covers on both wings by accomplishing all the actions specified in Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002. Do the actions per the service bulletin.

**Note 1:** For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

## **Corrective Actions for Any Improperly Installed Fitting Assembly or Lockwire**

(b) If any fitting assembly is found to be improperly installed during the general visual inspection required by paragraph (a) of this AD, before further flight, do the actions specified in paragraphs (b)(1) and (b)(2) of this AD per Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002.

(1) Change the orientation of the fitting assembly.

(2) Perform a general visual inspection of the O-ring for damage, and replace any damaged O-ring with a new O-ring.

(c) If any lockwire is found to be improperly installed during the general visual inspection required by paragraph (a) of this AD, before further flight, replace the lockwire with a new lockwire, per Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002.

### **Inspection of the Stiffeners**

(d) Within 12 months after the effective date of this AD, do a general visual inspection of the stiffeners on the underside of fuel tank access covers on both wings for signs of chafing damage caused by incorrect orientation of the lockwire tail, per Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002.

### **Corrective Action for Chafing Damage**

(e) If any chafing damage is found during the general visual inspection required by paragraph (d) of this AD, before further flight, remove the damage per Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002, except where the service bulletin recommends contacting Bombardier for damage in excess of the given limits, before further flight, repair per a method approved by either the Manager, New York Aircraft Certification Office (ACO), FAA; or the Transport Canada Civil Aviation (TCCA) (or its delegated agent).

### **Credit for Original Service Bulletin**

(f) Accomplishment of the applicable actions specified in this AD before the effective date of this AD per Bombardier Alert Service Bulletin A8-28-33, dated June 3, 2002, is acceptable for compliance with the corresponding requirements of this AD.

### **Exception to Service Bulletin Reporting**

(g) Although the service bulletin referenced in this AD specifies to report inspection findings to the airplane manufacturer, this AD does not include that requirement.

### **Alternative Methods of Compliance**

(h) In accordance with 14 CFR 39.19, the Manager, New York ACO, FAA, is authorized to approve alternative methods of compliance for this AD.

### **Incorporation by Reference**

(i) Unless otherwise specified in this AD, the actions shall be done in accordance with Bombardier Alert Service Bulletin A8-28-33, Revision "A," dated October 10, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, suite 410, Westbury, New York; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**Note 2:** The subject of this AD is addressed in Canadian airworthiness directive CF-2002-44, dated October 22, 2002.

**Effective Date**

(j) This amendment becomes effective on October 13, 2004.

Issued in Renton, Washington, on August 26, 2004.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-20207 Filed 9-7-04; 8:45 am]

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